

Date: Sat, 23 Oct 93 04:30:28 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #81
To: Ham-Homebrew

Ham-Homebrew Digest Sat, 23 Oct 93 Volume 93 : Issue 81

Today's Topics:

How to do CW with a cb?
INTERMOD

Need Louder PC Speaker for Code Practice.

Santec ST-7/T Help ?

Temp control soldering iron? (2 msgs)

Transistor substitution question

Send Replies of Notes for publication to: <Ham-Homebrew-REQUEST@UCSD.EDU>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.EDU>

Send subscription requests to: MAIL-HOMEVIEW-REQUEST@UCSD.EDU
Problems you can't solve otherwise to brian@ucsd.edu

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 23 Oct 93 00:59:33 GMT

From: ogicse!uwm.edu!cs.utexas.edu!swrinde!menudo.uh.edu!mtecv2.mty.itesm.mx!
al152511@network.ucsd.edu

Subject: How to do CW with a cb?

To: ham-homebrew@ucsd.edu

Hello, everybody in the group!!

I am looking to practice the code to get an amateur license, and would like to know if there is a way to make a cb radio to transmitem in CW, or how to make it transmitem with a "fake" CW, only using a key to make noise, and communicate with a partner equiped in the same manner.

Does anyone have try this, and it worked?

Our radios have extra frequencies and we live in a rural area, so it is very

few the disturbance we could cause, if any, to the neighbor cbers.

Any comments would be very apreciated.

Entonces vinieron por mi,
y para entonces,
no habia nadie que hablara en mi favor

Date: 22 Oct 93 17:33:59 GMT
From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu
Subject: INTERMOD
To: ham-homebrew@ucsd.edu

In article <1993Oct20.125238.17433@schbbs.mot.com> CSLE87@maccvm.corp.mot.com (Karl Beckman) writes:

>Gary, I think you missed a very subtle difference. Dave Feldman really
>did say and mean PRE-AMP, not POWER AMPLIFIER. Therefore his approach
>is technically correct and viable, although your technically better
>idea of using a bandpass filter was expressed by others and apparently
>will be in print in the next issue of QST.

You, and everybody else who caught this, are absolutely right. I didn't read the original carefully enough. You could use a burnt out power amp though, you'd just have to wire the attenuator in the receive line and strap out the power section to straight through.

Gary

--

Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: Thu, 21 Oct 93 17:10:31 GMT
From: mercury.hsi.com!a3bee2.radnet.com!cyphyn!randy@uunet.uu.net
Subject: Need Louder PC Speaker for Code Practice.
To: ham-homebrew@ucsd.edu

Richard L Barnaby (rbarnaby@world.std.com) wrote:
: I'd like to add a simple speaker to an IBM PC that is externally

: controlled. Just an op-amp, a pot, and a speaker? Tap into the
: pc's speaker "jack"?

That'll work....just don't connect direct to the speaker it self IN the PC.

Use an LM 386 set up for low gain:

(10 uf in series to 5600 ohms for pin 1 & 8 ckt
leave pin 7 open ckt
wire the rest as usual, but put 2nd 10 ohms in series to the speaker
because, that chip will run HOT if you try to drive less than 16 ohms)

: Impedance of speaker matter? Any ol' radio shack \$5 speaker do? Any of 8 ohms or more will work, 1/4 watt or more, rated....using LM 386.

Date: 22 Oct 1993 13:48:31 GMT
From: bloom-beacon.mit.edu!senator-bedfellow.mit.edu!w1gsl@uunet.uu.net
Subject: Santec ST-7/T Help ?
To: ham-homebrew@ucsd.edu

Posted for a friend without Net access. Replies to this account will be passed on.

Santec ST-7/T Help

I'm trying to resurrect a flea market bargain. Can anyone provide me with a schematic, operating or service manual for this 440 MHz HT? I'd be glad to pay copying / mailing costs.

Thanks
W1BG
Penn Clowes

Steve Finberg W1GSL w1gsl@athena.mit.edu

PO Box 82 MIT Br Cambridge MA 02139 617 258 3754

Date: 22 Oct 93 19:37:03 GMT
From: ogicse!hp-cv!sdd.hp.com!col.hp.com!srgenprp!alanb@network.ucsd.edu
Subject: Temp control soldering iron?
To: ham-homebrew@ucsd.edu

Bob Schetgen (KU7G) (rschetge%arrl.org) wrote:
: As ARRL Handbook Editor, I would like to update the old
: standby soldering iron project to a newer approach.

You mean my old WW-II surplus variac is not state-of-the-art? :=)

: Maximum approach: Attach a thermocouple or RTD
: (resistance temperature detector) near the iron tip and feed
: temperature info back to control an SCR.

That's what the Weller WTCP-series solder stations do. I think they cost on the order of \$100. You might be able to save some money by buying replacement irons and tips from Weller and inventing your own base unit.

AL N1AL

Date: 22 Oct 93 17:42:47 GMT
From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu
Subject: Temp control soldering iron?
To: ham-homebrew@ucsd.edu

In article <2480@arrl.org> rschetge%arrl.org (Bob Schetgen (KU7G)) writes:
> As ARRL Handbook Editor, I would like to update the old
>standby soldering iron project to a newer approach.
>
> Minimum approach: Place a light dimmer in series with
>the iron. Pros: cheap, easy. Cons: RFI noisy, only sets an
>approximate maximum temperature.
>
> Maximum approach: Attach a thermocouple or RTD
>(resistance temperature detector) near the iron tip and feed
>temperature info back to control an SCR. Pros: professional
>quality control. Cons: Complex, expensive. Cost must be <
>\$100 for parts (I've seen bead thermocouples for \$17, RTDs
>for \$19).

Let me throw out an idea. Temperature controlled soldering irons are widely available, and often dirt cheap surplus. Something that would be more interesting for today's electronics would be a temperature controlled static hot air source for SMD work.

I would suggest something along the lines of a small tube with a ceramic heating element that has a bead thermistor near the outlet. The thermistor can act as the variable resistance in a 555 astable. The output of the astable can be used to pulse a pass transistor carrying current to the heating element. Add a tiny fan for air movement, and viola, instant hot air source.

Gary

--
Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: 22 Oct 93 13:22:25 GMT
From: psinntp!arrl.org@uunet.uu.net
Subject: Transistor substitution question
To: ham-homebrew@ucsd.edu

As with all substitutions, it depends a lot on the circuit. Looking at the Smith charts for the grounded emitter input impedance, it looks like they aren't that far off at 80 meters. Some emitter feedback in the circuit will make them even closer.

With the typical class C circuits used by amateurs in CW transmitters, gain shouldn't be a problem below 10 MHz. While the 475 has 8 dB less gain, it is rare to see a circuit needing all 28+ dB of gain the 476 will provide. A single RF stage with that much gain is likely to be unstable.

Linear circuits often have feedback that reduces the effect of variations in device gain. What might happen is that the lower gain device will work just fine at the lower frequencies, but the gain and therefore the output power will become inadequate at the higher frequencies.

The primary disadvantage of the higher power 475 is the much higher output capacitance--looks like 1000 pF vs 125 pF at 10 MHz. You might be able

to modify the output network to handle this. This usually isn't a problem with narrowband tuned circuits, but can be if you are trying to design a wideband network with no adjustments.

Zack Lau KH6CP/1

Internet: zlau@arrl.org "Working" on 24 GHz SSB/CW gear
US Mail: c/o ARRL Lab
225 Main Street Station capability: 1.8 MHz to 10 GHz
Newington CT 06111
amtor/baudot
Phone (if you really have to): 203-666-1541

In rec.radio.amateur.homebrew, epacyna@auratek.COM (Edward Pacyna) writes:
>> The MRF475 is a 12W (PEP) NPN output device, the MRF476 is an NPN 3W
>> device- same pin-outs, similar voltage ratings (475 V_{CBO} is 48V, 476 is
>> 36V). If a single ended application- then it looks like a 475 will
>> easily replace a 476.
>> 73, Drew, VK3XU.

>Probably not.

>

>The power gain, base and collector impedances are different. The amount of
>drive available to the stage will most likely not be sufficient to overcome
>these differences.

End of Ham-Homebrew Digest V93 #81
